

## **RUN-TIME PARALLELIZATION OF LOOPS IN COMPUTER PROGRAMS**

### **ABSTRACT**

- 5 Parallelization of loops is performed for loops having indirect loop index variables and embedded conditional statements in the loop body. Loops having any finite number of array variables in the loop body, and any finite number of indirect loop index variables can be parallelized. There are two particular limitations of the described techniques: (i) that there are no cross-iteration dependencies in the loop other than through the indirect
- 10 loop index variables; and (ii) that the loop index variables (either direct or indirect) are not redefined in the loop body.